

# The Bermudan and Caribbean Sacoglossan Mollusk *Elysia flava* Verrill Now Recorded from the Greek Aegean Sea

by

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*Abstract.* This Bermudan type has now been recorded from Tenerife, Jerba (Tunisia), the west coast of the Greek Aegean island of Evia, and the north shore of the Gulf of Corinth. It represents a new record for the Mediterranean Sea and a range-extension of many thousands of kilometers.

## INTRODUCTION

ONE OF THE LEAST known sacoglossans (=ascoglossans) of the Atlantic Ocean, *Elysia flava* Verrill, 1901, was first described from the shore at Castle Harbour, Bermuda. It was distinct by virtue of its short, non-papillate rhinophores, white tuberculate parapodial rims, and the white papillae inside the parapodia. VERRILL (1901) studied an unknown number of specimens, up to 18 mm in length; he recorded it as "rare." In 1977 my observations on Jamaican sacoglossans were published, including a description of two specimens of *E. flava*, one from the north of the island, the other from the south (THOMPSON, 1977). These were the first reports of this distinctive species since Verrill's type-description.

Since that time, a further record of *E. flava* has come from ORTEA (1982) who described two specimens, 11 and 13 mm in length, from Tenerife in the Canary Islands; this was the first citation from the eastern Atlantic.

Sublittoral collections in Greek waters in the summer of 1982 have yielded three further specimens, extending the known range by thousands of kilometers. At the same time, Dr. Philippe Bouchet obtained similar material from

the coast near Jerba (sometimes written Djerba), on the Tunisian shores of the Mediterranean Sea. The depth range was 1-8 m. The opportunity was taken to re-investigate the internal anatomy, especially the sexual organs and the radula.

Many other Mediterranean *Elysia* species have been described and illustrated by SCHMEKEL & PORTMANN (1982), and a taxonomic review is being prepared by Dr. Bouchet.

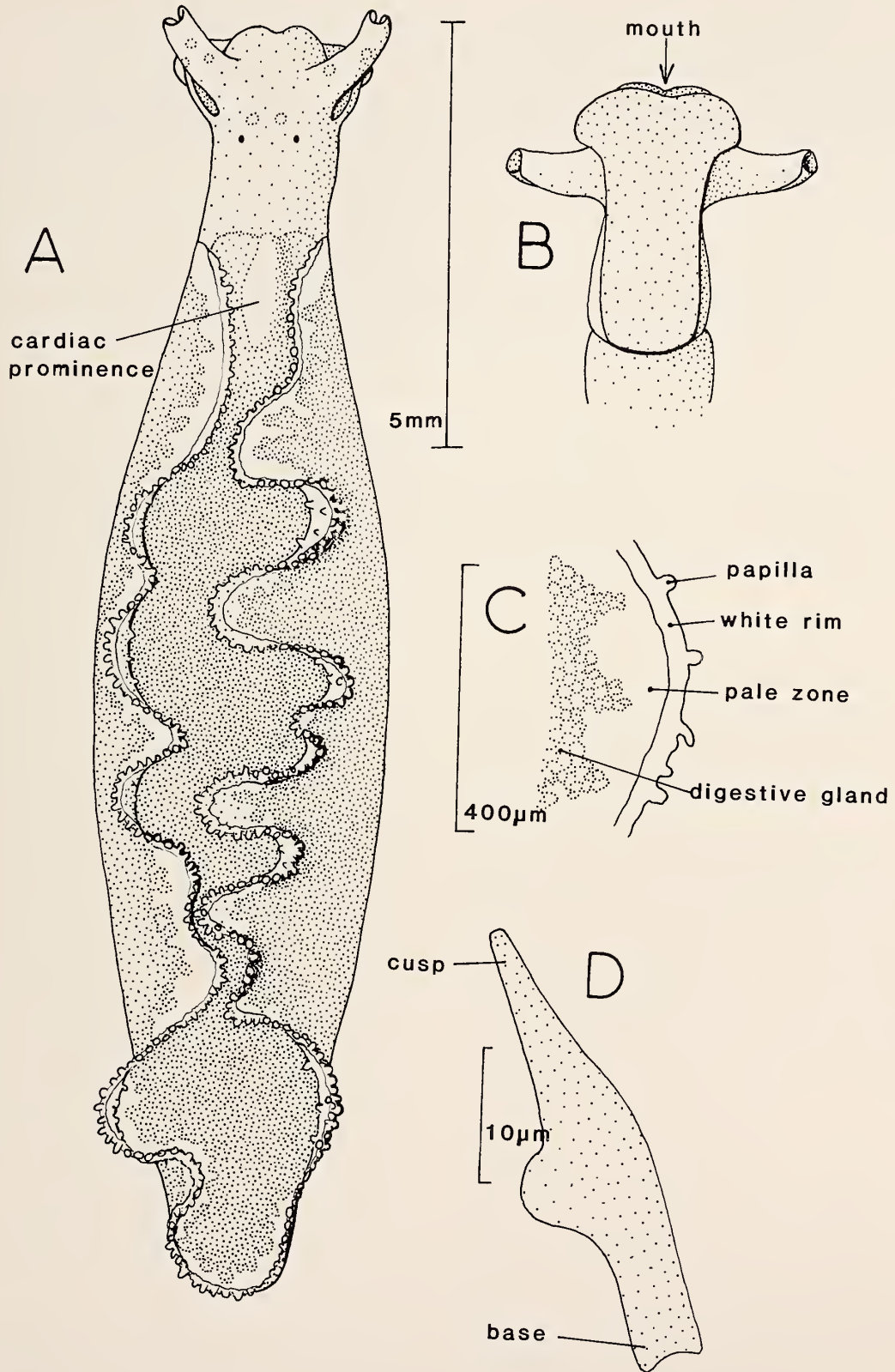
## DESCRIPTION

**Material.** Two specimens were found in subtidal shallows (to 2 m) 4 km to the south of Amarynthos, on the west coast of the Aegean Island of Evia, 23 July 1982 (length 15 mm) and 17 August 1982 (length 10 mm). Another specimen was found in 1 m of water, near Eratini on the north shore of the Gulf of Corinth, 30 July 1982 (11 mm). All were found under loose stones.

**External features.** The overall color is pale yellowish green, through which the dark green lobes of the digestive gland can be discerned. There is a little crimson speckling

## Figure 1

*Elysia flava* Verrill. A, Dorsal view from life of a 15-mm specimen from Evia, July, 1982. B, Ventral view of the head of the same. C, Enlarged view of the parapodial rim. D, Radular tooth, 34  $\mu$ m in length, of a 10-mm specimen from Evia, August, 1982, examined in polyvinyl lactophenol.



on the epidermis of the head, and over much of the rest of the body, both inside and outside the parapodial lobes. The parapodial rim is white and bears numerous blunt papillae; similar papillae can be found inside the parapodia, sparsely distributed. The rhinophores are short and bear a few large white blotches. The head is pale yellow in color, slightly bilobed anteriorly. The propodium is markedly bilobed. There are no gills (blood-engorged folds of the epithelium) inside the parapodia.

**Anatomy.** The radula of the 10-mm specimen was examined in polyvinyl lactophenol. The formula was  $19 \times 0.1.0$ ; all the teeth were smooth. The 15-mm specimen was serially sectioned. The ovotestis was filled with ripe

eggs and sperm. No spawn was found either in the field or the laboratory.

#### LITERATURE CITED

- ORTEA, J. 1982. Moluscos opisthobranquios de las islas Canarias. Primera parte: Ascoglossos. Bol. Inst. Espa. Oceanogr. 6:192-213.
- SCHMEKEL, L. & A. PORTMANN. 1982. Opisthobranchia des Mittelmeeres Nudibranchia und Sacoglossa. Springer-Verlag, Berlin. x + 410 pp.
- THOMPSON, T. E. 1977. Jamaican opisthobranch molluscs. I. J. Moll. Stud. 43:93-140.
- VERRILL, A. E. 1901. Additions to the fauna of the Bermudas from the Yale Expedition of 1901 with notes on other species. Trans. Conn. Acad. Sci. 11(1):15-62.